

Claims

1. Method for coding a presentation description of audio signals, comprising:
- 5       generating a parametric description of a sound source;
- linking the parametric description of said sound source with the audio signals of said sound source;
- characterized by**
- 10       describing the wideness of a non-point sound source (LSS) by means of said parametric description (ND1, ND2, ND3); and
- defining a presentation of said non-point sound source by multiple decorrelated point sound sources (S1,
- 15       S2, S3).
2. Method according to claim 1, wherein separate sound sources are coded as separate audio objects and the arrangement of the sound sources in a sound scene is described by a scene description having first nodes corresponding to the separate audio objects and second nodes describing the presentation of the audio objects and wherein a second node describes the wideness of a non-point sound source and defines the presentation of
- 20       said non-point sound source by multiple decorrelated point sound sources.
3. Method according to claim 1 or 2, wherein one of several decorrelation algorithms (DIS) and/or the strenght of the decorrelation (DES) of said multiple decorrelated point sound sources is assigned to said non-point sound source.
- 30
4. Method according to any of claims 1 to 3, wherein a
- 35       shape approximating said non-point sound source is defined.

5. Method according to claim 4, wherein the size of the defined shape is given by parameters in a 3D coordinate system.

5

6. Method according to claim 5, wherein the size of the defined shape is given by an opening-angle having a vertical and a horizontal component.

10

7. Method according to any of claims 4 to 6, wherein a complex shaped non-point sound source is divided into several shapes (A1, A2, A3) each approximating a part of said non-point sound source.

15

8. Method for decoding a presentation description of audio signals, comprising:

receiving audio signals corresponding to a sound source linked with a parametric description of said sound source;

20

**characterized by**

evaluating the parametric description (ND1, ND2, ND3) of said sound source for determining the wideness of a non-point sound source (LSS); and

25

assigning multiple decorrelated point sound sources (S1, S2, S3) at different positions to said non-point sound source.

30

9. Method according to claim 8, wherein audio objects representing separate sound sources are separately decoded and a single soundtrack is composed from the decoded audio objects using a scene description having first nodes corresponding to the separate audio objects and second nodes describing the processing of the audio objects, and wherein a second node describes the wideness of a non-point sound source and defines the presentation of said non-point sound source by

35

means of said multiple decorrelated point sound sources emitting decorrelated signals.

10. Method according to claim 8 or 9, wherein one of  
5 different decorrelation algorithms (DIS) is applied to the audio signal of said non-point sound source and/or the strenght of the decorrelation (DES) of said multiple decorrelated point sound sources is selected depending on corresponding indications assigned to  
10 said non-point sound source.
11. Method according to any of claims 8 to 10, wherein said multiple decorrelated point sound sources are arranged in a shape approximating said non-point sound  
15 source.
12. Method according to claim 11, wherein the size of the defined shape is determined using parameters in a 3D coordinate system.  
20
13. Method according to claim 12, wherein the size of the defined shape is determined using an opening-angle having a vertical and a horizontal component.
- 25 14. Method according to any of claims 11 to 13, wherein several shapes (A1, A2, A3) are combined to generate an approximation of a complex shaped non-point sound source.
- 30 15. Apparatus for performing a method according to any of claims 1 to 14.